

09/710,489

PATENT APPLICATION

**PROPOSED AMENDMENTS TO THE CLAIMS**

1 1) (Currently amended) A ~~micro-machined~~ structure comprising:  
2 a structural layer consisting essentially of sputtered silicon, said structural layer  
3 comprising  
4 a core silicon layer patterned with released structures thereof;  
5 a first conductive layer in contact with and on top of said core silicon layer; and  
6 a second conductive layer in contact with and below said core silicon layer, wherein said  
7 first and second conductive layers have essentially the same shape as said core silicon layer; and  
8 a pre-fabricated integrated electronic complimentary metal oxide semiconductor circuitry  
9 electrically coupled to integrated with said structural layer, wherein said pre-fabricated integrated  
10 electronic circuitry is characterized as an operational semiconductor circuitry has a metalized  
11 circuitry layer on top of an oxidized layer of a substrate.

1 2) (Cancelled).

1 3) (Currently amended) The ~~micro-machined~~ structure of claim-2 1, wherein  
2 said at least one of said first and second conductive layers is made ~~from of~~ a Titanium  
3 based material.

1 4) (Currently amended) The ~~micro-machined~~ structure of claim-2 3, wherein  
2 said ~~at least one conductive layer is made from a~~ Titanium based material is selected from  
3 a group consisting of TiW and TiN.

1 5) (Cancelled).

1 6) (Currently amended) The ~~micro-machined~~ structure of claim-2 1, wherein  
2 said core silicon layer has a first dissolving characteristic and ~~said at least one of said first~~  
3 and second conductive layers has a second dissolving characteristic and wherein said second  
4 dissolving characteristic is compatible with said first dissolving characteristic.

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1 7) (Currently amended) The ~~micro-machined~~ structure of claim 1, wherein  
2 said ~~operational~~-semiconductor circuitry includes an aluminum-based metalization.

1 8) (Cancelled).

1 9) (Currently amended) The ~~micro-machined~~ A structure of claim 1, further comprising:  
2 a substrate;  
3 a sacrificial layer on top of said substrate;  
4 a core silicon layer on top of said sacrificial layer, wherein said core silicon layer consists  
5 essentially of sputtered silicon and is patterned with released structures thereof;  
6 a released area defined by said substrate, said sacrificial layer, and said core silicon layer;  
7 optional aluminum terminals on top of said core silicon layer; and  
8 at least one sealing layer for covering said released area.

1 10) (Currently amended) The ~~micro-machined~~ structure of claim 9, wherein  
2 said at least one sealing layer ~~consisting essentially of~~ is silicon nitride.

1 11) (Currently amended) The ~~micro-machined~~ structure of claim 1 or 9, wherein  
2 said core silicon layer is made from boron doped silicon.

1 12) (Currently amended) The ~~micro-machined~~ structure of claim 1 or 9, wherein  
2 said core silicon layer is made from silicon doped with 40-80 ppm boron.

1 13) (Currently amended) The ~~micro-machined~~ structure of claim 1 or 9, wherein  
2 said ~~micro-machined structure is characterized as having released structures have either an~~  
3 essentially buckling-free deformation configuration or an essentially buckling-influenced  
4 deformation configuration.

1 14) (Currently amended) The ~~micro-machined~~ structure of claim 1 or 9, wherein  
2 said core silicon layer has a predetermined thickness which influences a strain gradient of  
3 said ~~micro-machined~~ structure.

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1 15) (Cancelled).

1 16) (Currently amended) The ~~micro-machined~~ structure of claim 1, wherein  
2 said ~~micro-machined~~ structure is characterized as ~~having~~ has a variable sputtered layer  
3 thickness and a correlated curvature, wherein said correlated curvature essentially decreases  
4 with an increase of the variable sputtered layer thickness.

1 Claims 17-41 (Cancelled).